Brief Report of a Special Case: *Acta Neurochirurgica*

Recurrent Infrasellar Clival Craniopharyngioma

Brian T. Ragel, M.D., Frank S. Bishop, M.D., William T. Couldwell, M.D., Ph.D.

Department of Neurosurgery, University of Utah, Salt Lake City, Utah

Corresponding author:

William T. Couldwell, M.D., Ph.D.

Department of Neurosurgery

University of Utah Health Science Center

Building 550, 5th Floor

175 N. Medical Drive, East

Salt Lake City, UT 84132

Tel: (801) 581-6908

Fax: (801) 581-4385

Email: william.couldwell@hsc.utah.edu

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Case Report

The patient is a 44-year-old man who underwent resection of a posterior nasopharynx tumor 12 years earlier via left lateral rhinotomy approach. The final pathological analysis indicated the tumor was a craniopharyngioma, and the patient subsequently underwent focal radiation. The patient returned to medical attention complaining of dysequilibrium. A neurologic exam was nonfocal. Magnetic resonance imaging revealed a clival mass, separate from the sella turcica, with imaging characteristics concerning for chordoma or primary bone tumor (Fig. 1). The lesion was resected via an endoscope-assisted endonasal transsphenoidal approach, with gross total resection achieved. Intraoperatively, the mass was noted to erode through the posterior nasopharynx, without extension superiorly into the sella or posteriorly through the clivus (i.e., lesion was infrasellar). The final pathological results indicated the tumor was adamantinomatous craniopharyngioma.

Discussion

Craniopharyngiomas represent 3% of all intracranially located tumors, with equal sex incidence. These tumors are most commonly located extra-axially in the sellar or suprasellar region in 90% of cases, with anterior, middle, or posterior cranial fossa extension noted in 2–5%, 2%, and 1–4%, respectively [2]. Craniopharyngiomas may originate anywhere along the obliterated craniopharyngeal duct (Rathke's pouch), which explains reports of ectopic tumors (i.e., craniopharyngiomas not associated with the sella turcica) arising in

the nasopharynx, sphenoid bone, third ventricle, pineal gland, sylvian fissure, and cerebellopontine angle [2]. Infrasellar craniopharyngiomas are rare, with approximately 40 cases reported in the literature, most showing sella turcica involvement [1-5]. Fifteen of these cases were completely infrasellar (i.e., no sellar extension). No reports of infrasellar craniopharyngioma recurrence were found. Our case recurred 12 years after resection and focal radiation to the sphenoid portion of the clivus with gross total resection achieved. We plan to follow this patient with serial neuroimaging.

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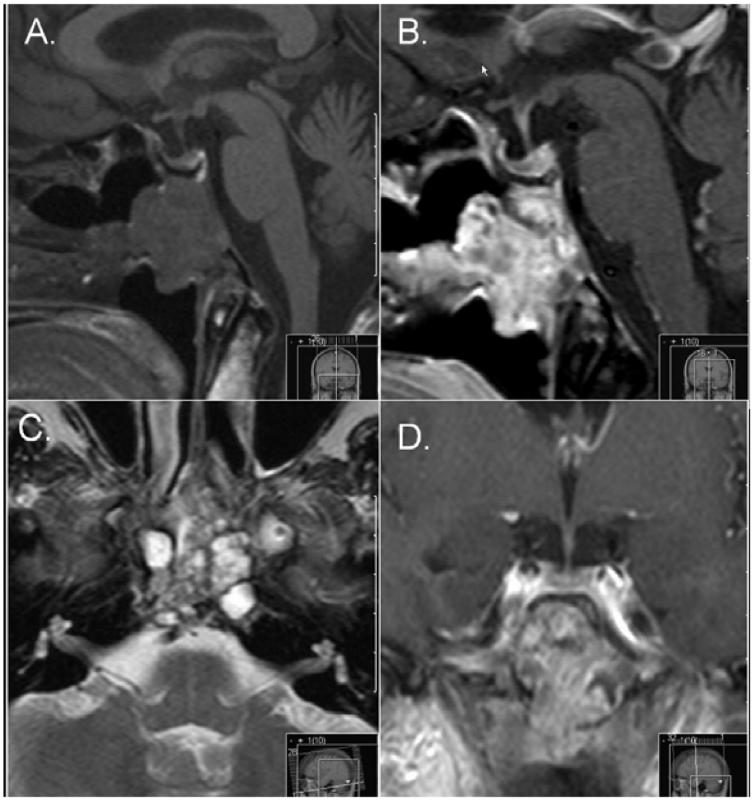

Figure 1: Magnetic resonance imaging (MRI) studies showing a clival mass measuring 2.5 x 2.2 x 2.0 cm (width x anterior–posterior x rostral–caudal). A. Sagittal, T1-weighted MRI exhibiting isointense clival mass with anterior extension into the posterior nasopharynx. B. Sagittal, T1-weighted MRI with gadolinium showing uniform enhancement of the clival mass. Note the normal appearance of the pituitary stalk and gland with no relationship noted between the sella and infrasellar mass. C. Axial, T2-weighted MRI exhibiting hyperintense lesion of clival mass. D. Coronal, T1-weighted MRI with gadolinium.

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